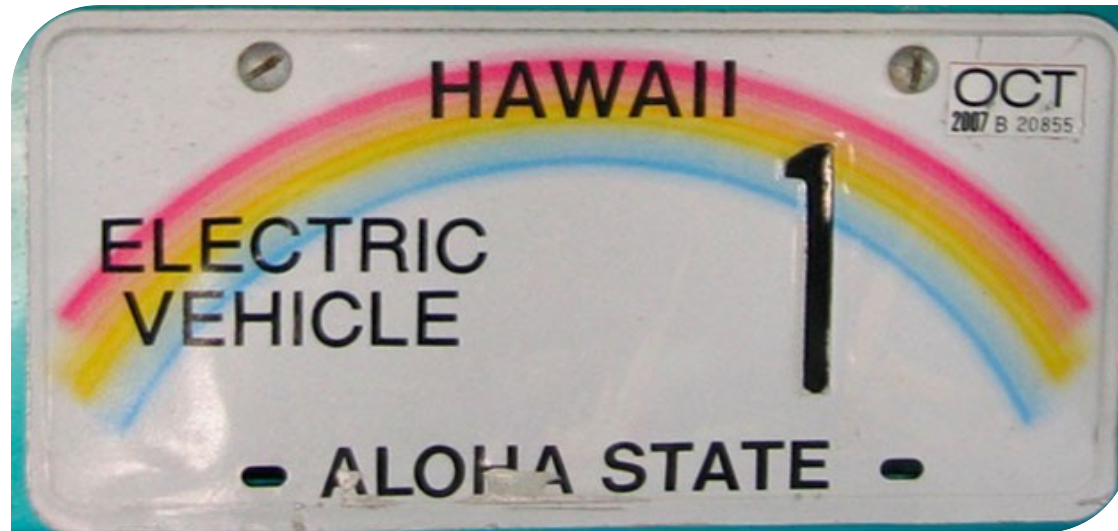


Electrifying the Vehicle Market Across Hawaii

**Hawaii State Energy Office
Build and Buy Green Conference
May 10, 2013**

Hawaii EV Market



Opportunities

- + Ideal Market characteristics
- + Favorable Policies
- + Test Bed – Smart Grid Implications
- + Abundance of Renewable Energy
- + Synergies with Tourism Industry
- + Potential to be an International Showcase

Challenges

- ❑ Higher EV Vehicle Cost
- ❑ Range Anxiety
- ❑ Educating the Public

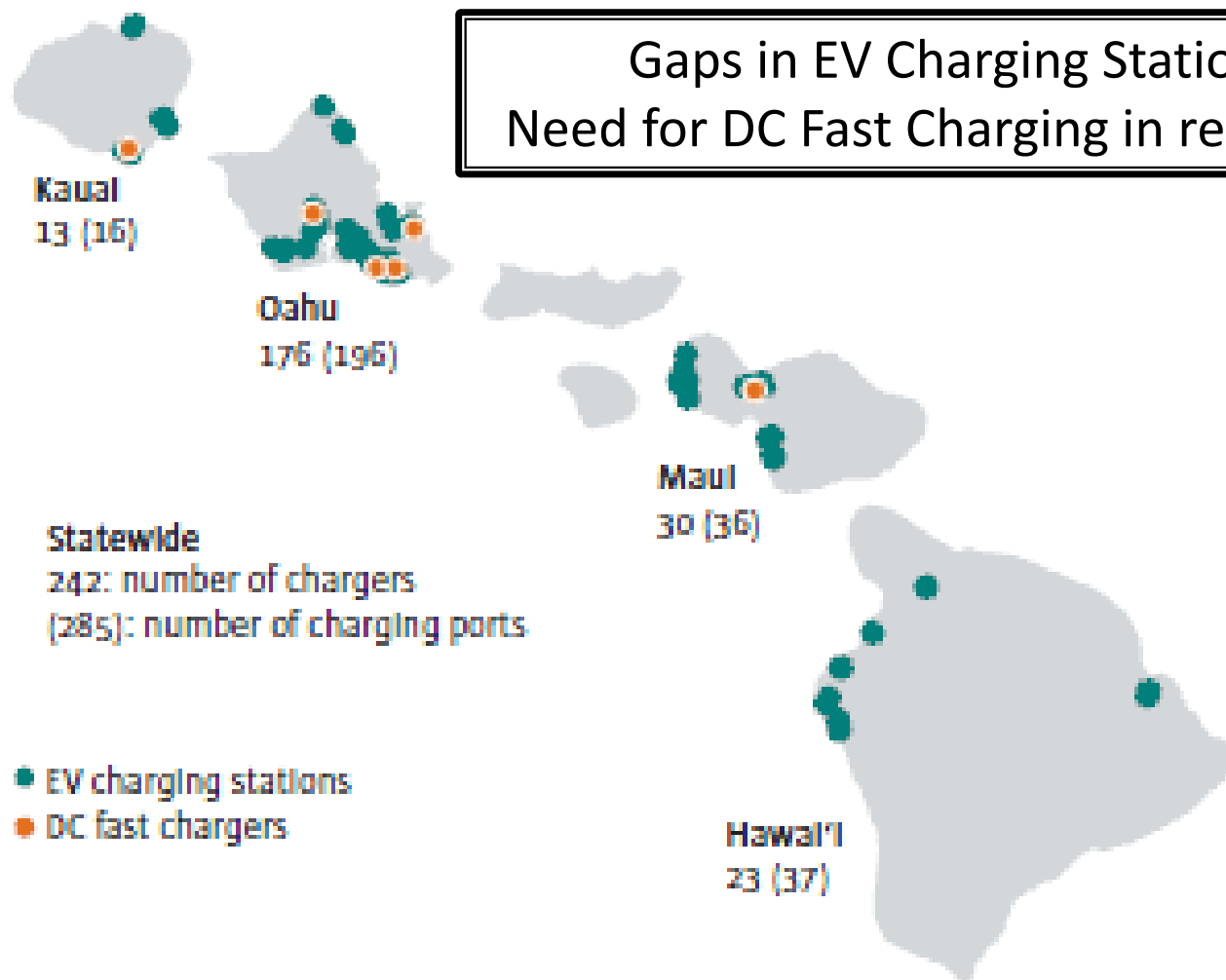
Charging Station/ EV Registration Status:

Increased EV Registrations

Expanded Public Charging Station Options

Island	Public Charging Level 2	Ports	Public Fast Charging	EVs
Oahu	212	233	4	972
Maui	30	37	1	192
Hawaii	29	45	0	88
Kauai	25	28	1	35
State of Hawaii	296	343	6	1,287

Gaps in EV Charging Station locations Need for DC Fast Charging in remote areas



Locations of EV charging stations and DC fast chargers in Hawai'i as of February 2013.

Illustration by Stacy Buchanan, NREL

Rebate/Grant Program

Hawaii EV Ready Program (2010 – 2012)

- ▶ **As of May 2012, 1136 EVs Registered**
700% increase over number of EVs registered before Rebate/Grant Program
- ▶ **Rebate Program:** 453 Rebates for EVs
274 Rebates for EV Chargers
- ▶ **Grant Program Funded:** 277 Level 2 Chargers
6 DC Fast Chargers

Status: EV Regulatory Changes

✓ **Free parking is Available:**

- On State and County Government lots
- At parking meters for no more than 2.5 hours or the maximum time the meter allows - whichever is longer
- Airport EV Parking Spaces - 30 Day Limit

** No EV related policies in Legislative Session 2013*

✓ **EV Charging Station Requirements**

- Public Parking lots with 100+ stalls: 1 EV Charger
- As of 7/1/2013, parking a non-EV in a space reserved for an EVs will now be a “traffic infraction” subject to fine of not less than \$50 or more than \$100
- No EV related policies in 2013 Legislative Session

Fuel Cost Comparisons

Vehicle	2012 Nissan Versa	2012 Honda Civic	2012 Nissan Leaf
Fuel Type	Gasoline	Gasoline	Electricity
Miles Per Gallon	27 MPG	32 MPG	
Fuel Costs	\$ 4.10/gallon	\$ 4.10/gallon	Electricity: \$ 0.347/kWh
Fuel Cost per Mile	\$ 0.1519 / mile	\$ 0.1282 / mile	\$ 0.118 / mile
Fuel Cost per Year	\$1,370/ year	\$1,156/ year	\$1,064/ year

Next Steps

- **Fast Chargers Coming**
- **Reduce Range Anxiety**
- **Maui Initiative**
- **Hitachi on Maui**

- ✓ **Statewide EV Charging Station Location Database**
- ✓ **Guidebook for Commercial Charging Station Installations**
- ✓ **Hawaii EV Ready Shared Contact Directory**
- ✓ **Lessons Learned Reports: Hawaii EV Market**

Find Online: Electricvehicle.hawaii.gov

Thank you!

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